

CLAIMS

1. Method of production of springs of wire of circular or other type cross-sectional area, that is characterized by the fact that we produce initially from the wire a cylindrical spring (6) with diameter and pitch equal or smaller than the smallest diameter or pitch of the final under production spring (7) respectively, wherein each spring turn of the initial cylindrical spring (6) at the instance that it has been formed to the selected diameter, it is controllably pushed from the inner side towards the outside and simultaneously along the direction of the length-wise axis of the spring of the spring advancement sense with a suitable means, where the energy has as a consequence its initial diameter to enlarge analogously acquiring the selected dimension of the spring turn of the final spring (7) where by the simultaneous controlled force of the same spring turn in the direction of the spring advance sense, it is properly bent and acquires the selected pitch of the spring turn of the final spring (7), wherein by the continuous adjustment onto each new spring turn of the initial spring (6) that is produced the final spring (7) is manufactured.
2. Method according to Claim 1 that is characterized by the fact that the further processing of the spring turn of the initial spring (6) can begin to take effect before it has been accomplished soonest after the wire has already acquired the permanent bending that corresponds to the diameter of the initial spring (6).
3. Method according to Claim 1 that is characterized by the fact that the wire during the production of the initial cylindrical spring (6) that is formed by the pull and the wrapping of the wire around the suitable revolving central roller (1) it is compressed onto it by preference by more than one roller (2), (3), (4).
4. Method according to Claim 1 that is characterized by the fact that we produce the cylindrical spring by wrapping of the wire onto revolving rollers (1) pressing simultaneously the wire onto it with rollers (2), (3), (4) with proper pressure, so that besides the bending of the wire to create also the analogous function so as to ensure strong pull of the wire.

5. Method according to Claim 1 that is characterized by the fact that the creation of the pitch and diameter of each spring turn of the final spring (7) can be generated successively one after another with independent movements.

5 6. System of product of springs of wire of circular or other cross-sectional area that is characterized by the fact that it consists of a central revolving roller (1) onto which are contacting with pressure perimetricaly other rollers more than one, so as to encapsulate it, as to pull and to bend the wire creating the initial spring (6) and an elbow member (12) with a suitable pin (5) at its one end, that encapsulates the emerging spring turn from its inner and lower side, where the elbow (12) is connected to an axle (10) that is resting on a suitable base (11), which can rotate controllably around its axis, moving the elbow with the pin(5) towards the outside and can simultaneously move controllably along the direction of the axis of the spring.

15 7. System of production of spring of wire of circular or other cross-sectional area according to Claim 6 that is characterized by the fact that is can have two elbows with pins at its ends connected to suitably supported axles, where each axle is designed to encapsulate the spring turn of the initial spring (6) and to move pressing it from the inner side towards the outside to develop the selected spring turn diameter of the final spring (7) and the second pin is designed to encapsulate the spring turn of the initial spring (6) and to move along the direction of the longitudinal axis of the spring in the spring advance sense in order to create the selected spring turn pitch of the final spring (7).

20 8. System of production of springs of circular or other type cross-sectional area according to Claim 6 that is characterized by the fact that rollers (2), (3), (4) that are in contact with the central roller (1) are more than one according to the cross-sectional area of the wire and by preference three.

25 9. System of production of springs of circular or other type cross-sectional area according to Claim 6 that is characterized by the fact that besides the main roller (1), it is possible to impart motion selectively to other rollers (2), (3), (4).

5 10. System of production of spring of circular or other type cross-sectional area according to Claim 6 that is characterized by the fact that the movements of rollers

(1), (2), (3) and (4) that have motion and of the axle (10) which through the elbow (12) moves the pin (5) are directed, controlled and coordinated by a suitable electronic computer through which we enter the necessary characteristics of the processed final spring (7) which are the selected diameter and the selected pitch at each spring turn.